

What is claimed is:

1. A method for manufacturing a weak alkaline organic fertilizer from organic waste including food waste, the method comprising the steps of:

(a) adding 0.1 to 5 parts by weight of a desalter based on 100 parts by weight of the organic waste including food waste with agitating to remove saline matters from the organic waste;

(b) adding 5 to 40 parts by weight of quick lime or dolomite based on 100 parts by weight of the organic waste to the product of the step (a) for hydration;

(c) mixing the product of the step (b) with agitating for aging;

(d) mixing the product of the step (c) and adding an ingredient improver of the product;

(e) adding a deodorizer to the product of the step (d) with agitating for elimination of malodorous volatile matters from the product and deodorization; and

(f) adding a carbon dioxide gas or a combustion gas containing the carbon dioxide gas to the product of the step (d) to cause a carbonation with the hydrated lime and/or dolomite in the order of the steps (d), (c) and (b).

2. The method as claimed in claim 1, wherein the desalter is selected from the group consisting of waste gypsum and gypsum ( $\text{CaSO}_4$ ), calcium carbonate ( $\text{CaCO}_3$ ) or calcium chloride ( $\text{CaCl}_2$ ).

3. The method as claimed in claim 1, wherein the ingredient improver is selected from the group consisting of a siliceous material, including wollastonite powder or slags of ironwork byproducts; a carbon ingredient, including graphite, active carbon or charcoal; sawdust for control of moisture absorption; bentonite or zeolite for improving a

cation exchange capacity; supplementary organic matters, including farmyard manure, fish cake, oil cake or sludge; and clay minerals for supplying micronutrient elements.

4. The method as claimed in claim 1, wherein the deodorizer is selected from the group consisting of active carbon, zeolite, bentonite, and charcoal.

5. A method for manufacturing a plant functionality provider, comprising the steps of: mixing, based on 100 parts by weight of acetic acid, 0.3 to 1.0 part by weight of chitosan and/or its derivative having a molecular weight of less than 30,000, 10 to 18 parts by weight of boric acid, 5 to 15 parts by weight of ferric chloride and 0.2 to 0.8 part by weight of ascorbic acid at a temperature of 30 to 40 °C with sufficient agitating, and standing the mixture for at least 24 hours to enhance the plants' absorption of nutriment such as calcium.

6. A method for manufacturing a functional plant agent, comprising the step of mixing 0.5 to 6 parts by weight of the plant functionality provider according to claim 5 with 100 parts by weight of the individual organic fertilizer according to claim 1.

7. A method for manufacturing a plant functionality promoter, comprising the steps of:

(a) mixing, based on 100 parts by weight of acetic acid, 800 to 850 parts by weight of water and 70 to 130 parts by weight of dolomite powder at a temperature of 30 to 40 °C with agitating;

(b) adding 0.3 to 1.0 part by weight of chitosan and/or its derivative having a molecular weight of less than

30,000, 10 to 18 parts by weight of boric acid, 5 to 15 parts by weight of ferric chloride, and 0.2 to 0.8 part by weight of ascorbic acid, with agitating;

(c) standing the resulting mixture of the step (b) for at least 24 hours; and/or

(d) powdering the resulting mixture of the step (c) through dehydration, drying and pulverization.

8. A method for manufacturing a functional plant agent, comprising the step of adding 0.5 to 6 parts by weight of the plant functionality promoter according to claim 7 based on 100 parts by weight of the individual fertilizer according to claim 1.